

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Express Mail No. EV351237070US

Applicant : Ba-Zhong Shen, et al.
Application No. : To Be Assigned
Filed : Herewith
Title : METHOD AND APPARATUS FOR ITERATIVE DECODING
Grp./Div. : To Be Assigned
Examiner : To Be Assigned
Docket No. : 51769/RRT/B600

**INFORMATION DISCLOSURE STATEMENT
FOR A CONTINUING NON-CPA APPLICATION**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PostOffice Box 7068
Pasadena, CA 91109-7068
January 2, 2004

Commissioner:

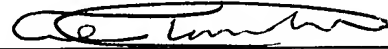
In compliance with the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, enclosed is FORM PTO/SB/08A/B. The references listed thereon are not enclosed because they were of record in a parent application, Application No. 10/219,858, filed August 15, 2002.

It is respectfully requested that these references be considered in the examination of this application, and identified in the list of references cited on the patent issuing on this application.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By



Raymond R. Tabandeh
Reg. No. 43,945
626/795-9900

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Enclosure(s)
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| | Group Art Unit | To Be Assigned |
| | Examiner Name | To Be Assigned |

| U.S. PATENT DOCUMENTS | | | | |
|-----------------------|-----------------------|---|--------------------------------|-------------------|
| EXAMINER INITIALS | Cite No. ¹ | DOCUMENT NUMBER Number - Kind Code ² (If Known) | Publication Date MM-DD-YYYY | Name of Patentee |
| | | 4,677,625 | 06-30-1987 | BETTS et al. |
| | | 4,677,626 | 06-30-1987 | BETTS et al. |
| | | 4,979,175 | 12-18-1990 | PORTER |
| | | 5,181,209 | 01-19-1993 | HAGENAUER et al. |
| | | 5,349,608 | 09-20-1994 | GRAHAM, et al. |
| | | 5,406,570 | 04-11-1995 | BERROU et al. |
| | | 5,446,747 | 08-29-1995 | BERROU |
| | | 5,563,897 | 10-08-1996 | PYNDIAH et al. |
| | | 5,666,378 | 09-09-1997 | MARCHETTO et al. |
| | | 5,675,585 | 10-07-1997 | BONNOT et al. |
| | | 5,703,911 | 12-30-1997 | LIN et al. |
| | | 5,721,745 | 02-24-1998 | HLADIK et al. |
| | | 5,734,962 | 03-31-1998 | HLADIK et al. |
| | | 5,742,612 | 04-21-1998 | GOURGUE et al. |
| | | 5,761,248 | 06-02-1998 | HAGENAUER, et al. |
| | | 5,784,300 | 07-21-1998 | NEUMEIER et al. |
| | | 5,841,818 | 11-24-1998 | LIN et al. |
| | | 5,907,582 | 05-25-1999 | YI |
| | | 5,933,462 | 08-03-1999 | VITERBI et al. |
| | | 5,970,085 | 10-19-1999 | YI |
| | | 5,978,365 | 11-02-1999 | YI |
| | | 5,983,384 | 11-09-1999 | ROSS |
| | | 5,983,385 | 11-09-1999 | KHAYRALLAH et al. |
| | | 5,996,104 | 11-30-1999 | HERZBERG |

| | |
|---|-----------------|
| EXAMINER SIGNATURE | DATE CONSIDERED |
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|-----------------------|-----------------------|---|--------------------------------|---------------------|
| EXAMINER INITIALS | Cite No. ¹ | DOCUMENT NUMBER Number - Kind Code ² (If Known) | Publication Date MM-DD-YYYY | Name of Patentee |
| | | 6,016,568 | 01-18-2000 | WOLF et al. |
| | | 6,065,147 | 05-16-2000 | PYNDIAH, et al. |
| | | 6,119,264 | 09-12-2000 | BERROU, et al. |
| | | 6,122,763 | 09-19-2000 | PYNDIAH, et al. |
| | | 6,182,261 | 01-30-2001 | HALLER |
| | | 6,304,996 B1 | 10-16-2001 | VAN STRALEN, et al. |
| | | 6,518,892 | 02-2003 | SHEN, et al. |

| FOREIGN PATENT DOCUMENTS | | | | | |
|--------------------------|-----------------------|---|--------------------------------|--|-----------------------|
| EXAMINER INITIALS | Cite No. ¹ | FOREIGN PATENT DOCUMENT Country Code ³ - Number ⁴ - Kind Code ⁵ (If Known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | T ⁶ (✓) |
| | | EP 0 843 437 A2 | 05-20-1998 | NTT MOBILE COMMUNICATIONS NETWORK, INC. | |
| | | EP 1 009 098 A1 | 06-14-2000 | Sony International (Europe) | |
| | | WO 02/19552 A2 | 03-07-2002 | Broadcom Corporation | |
| | | WO 02/37691 A2 | 05-10-2002 | Broadcom Corporation | |
| | | WO 02/41563 A2 | 05-23-2002 | Interdigital Technology Corporation | |
| | | EP-0891656 B1 | 09-15-1999 | France Telecom | |
| | | EP-0940957 A1 | 09-08-1999 | Nippon Hoso Kyokai | |
| | | EP 0973292A2 | 01-19-2000 | Nortel Networks Corporation | |
| | | EP-0986181 A2 | 03-15-2000 | NDS Limited | |
| | | EP 1030457A2 | 08-23-2000 | Interuniversitair Microelektronica Centrum | |

| | | | |
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| EXAMINER SIGNATURE | | DATE CONSIDERED | |
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| | | FR 2724522A1 | 03-15-1996 | France Telecom | |
| | | GB 2346782A | 08-16-2000 | Sagem SA | |
| | | US-028690A | 01-2001 | Ebel | |
| | | WO-99/19994 A2 | 04-22-1999 | Teledesic LLC | |
| | | WO-01/43310 A2 | 06-14-2001 | Broadcom Corporation | |
| | | WO-01/43384 A2 | 06-14-2001 | Broadcom Corporation | |
| | | WO-02/21702 A1 | 03-14-2002 | Broadcom Corporation | |
| | | WO-02/23738 A2 | 03-21-2002 | Broadcom Corporation | |
| | | WO-02/23739 A2 | 03-21-2002 | Broadcom Corporation | |

| OTHER DOCUMENTS | | |
|-------------------|-----------------------|--|
| EXAMINER INITIALS | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| | | D. AGRAWAL AND A. VARDY: "On the Phase Trajectories of the Turbo-Decoding Algorithm" 1999 IMA SUMMER PROGRAM CODES, SYSTEMS AND GRAPHICAL MODELS, 3 August 1999, pages 1-22, XP002207488 |
| | | M.E. BUCKLEY, et al: "The Design and Performance of a Neural Network for Predicting Turbodecoding Error With Application to Hybrid ARQ Protocols" IEEE Transactions on Communications, IEEE Inc., New York, US, vol. 48, no. 4, April 2000 (2000-04), pages 566-576, XP000932188, ISSN: 0090-6778, page 566, column 2, line 4 - line 16. |
| | | W.J. EBEL: "Turbo Code Implementation on the C6x" Texas Instruments Dsps Fest '99, August 1999 (1999-09), pages 1-13, XP002207490, Houston Texas, paragraph 'II.B!; Figure 4. |
| | | T.N. RAJASHEKHARA: "Signature analyzers in built-in self-test circuits: a perspective" Proceedings of the 1990 IEEE Southern Tier Technical Conference (Cat No. 90TH0313-7), Bingham, NY, USA, 25 April 1990, pages 275-281, XP010010765, 1990, New York, NY, USA, page 275, line 32 - page 277, line 20: figure 1, page 275, line 33 - line 35. |

| | | | |
|---|--|-----------------|--|
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| OTHER DOCUMENTS | | |
|-------------------|-----------------------|---|
| EXAMINER INITIALS | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |
| | | R. Y. SHAO, et al.: "Two Simple Stopping Criteria for Turbo Decoding" IEEE Transactions on Communications, IEEE Inc., New York, USA, vol. 47, no. 8, August 1999, pages 1117-1120, XP000848102, ISSN: 0090-6778, page 1119, column 1, line 4 - line 14. |
| | | Y. WU, et al.: "A Simple Stopping Criterion for Turbo Decoding" IEEE Communications Letters, IEEE Service Center, Piscataway, US, US, vol. 4, no. 8, August 2000, pages 258-260, XP000959692, ISSN: 1089-7798, Paragraph '0III', page 259, column 2, line 14-line 15. |
| | | "1999 IMA Summer Program: Codes, Systems and Graphical Models" HTTP://WWW.UMA.UMN.EDU/CSG/, August 1999, pages 1-6, page 3. |
| | | CLARK, G.C., et al.; "Error-Correction Coding for Digital Communications"; Error Correction Coding for Digital Communication; 1981; pages 349-352; XP002131001 |
| | | SHOEMAKE, Mathew B., et al.; "Turbo Codes for High Order Constellations"; Information Theory Workshop; 22 June 1998; pages 6-7; XP010297309; IEEE; USA |
| | | WANG, Zhongfeng, et al.; "VLSI Implementation Issues of Turbo Decoder Design for Wireless Applications"; Signal Processing Systems; 20 October 1999; pages 503-512; XP010370879 |
| | | AGRAWAL, Dakshi, et al.; "On the Phase Trajectories of the Turbo-Decoding Algorithm"; 1999 IMA Summer Program Codes, Systems and Graphical Models; http://www.comm.csl.uiuc.edu/~dakshi; 08-03-1999; pages 1-22; XP-002207488; |
| | | BUCKLEY, Michael E., et al.; "The Design and Performance of a Neural Network for Predicting Turbo Decoding Error with Application to Hybrid ARQ Protocols"; IEEE Transactions on Communications; April 2000; pages 566-576; Vol. 48., No. 4; XP-000932188; IEEE |
| | | EBEL, William J.; "Turbo Code Implementation on the C6x"; Texas Instruments DSPS Fest '99; August 1999; pages 1-13; XP002207490; Houston, TX |
| | | RAJASHEKHARA, T.M.; "Signature Analyzers in Built-In-Self-Test Circuits: A Perspective"; Proceedings of the 1990 IEEE Southern Tier Technical Conference ; 25 April 1990; pages 275-281; XP-010010765 |
| | | SHAO, Rose Y., et al.; "Two Simple Stopping Criteria for Turbo Decoding" IEEE Transactions on Communications; 08-08-1999; pages 1117-1120; Vol. 47, No. 8; XP-000848102; IEEE |

| | | | |
|---|--|-----------------|--|
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|-------------------|-----------------------|--|
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| | | WU, Yufei, et al.; "A Simple Stopping Criterion for Turbo Decoding"; IEEE Communications Letters; August 2000; pages 258-260; Vol. 4, No. 8; XP-000959692; IEEE |
| | | Internet Papers: "Codes, Systems and Graphical Models"; 1999 IMA Summer Program; http://www.ima.umn.edu/csg/ ; August 2-13, 1999; pages 1-6; XP-002207489 |
| | | BATTAIL, G., et al.; "Suboptimum decoding using Kullback principle," in Lecture Notes in Computer Science, No. 313, B. Bouchon et al. Eds., 1988, pp. 93-101. |
| | | BENEDETTO, S., et al.; "Parallel Concatenated Trellis Coded Modulation," Jet Propulsion Laboratory, California Institute of Technology, 5 pages. |
| | | BERROU, CLAUDE; "Near Optimum Error Correcting Coding and Decoding: Turbo-Codes," <i>IEEE Transactions on Communications</i> , October 1996, pages 1261-1271, Vol. 44, No. 10. |
| | | BERROU, CLAUDE, et al.; "Near Shannon Limit Error - Correcting Coding and Decoding: Turbo-Codes," <i>IEEE International Conference on Communications 93</i> , Geneva Switzerland, May 23, 1993, pages 1064-1070, Technical Program, Conference Record, Volume 2/3. |
| | | COLLINS, O. M., et al.; "Iterative Decoding of Non-Systematic Turbo-Codes"; 2000 IEEE International Symposium on Information Theory, Sorrento, Italy, June 25-30, 2000, p. 172, ISBN: 0-7803-5857-0. |
| | | DIVSALAR, D., et al.; "Effective Free Distance of Turbo Codes," <i>Electronics Letters</i> , February 29, 1996, pages 445-446, Vol. 32, No. 5. |
| | | DOLINAR, S., et al.; "Weight Distributions for Turbo Codes Using Random and Nonrandom Permutations," TDA Progress Report 42-122, Jet Propulsion Laboratory, August 1995, pages 56-65. |
| | | FAZEL, K., et al.; "Combined Multilevel Turbo-Code with 8PSK Modulation," <i>Global Telecommunications Conference, 1995. Conference Record. Communication Theory Mini-Conference, GLOBECOM 95. IEEE Singapore</i> , November 13, 1995, pages 649-653. |
| | | GROSS, W.J., et al.; "Simplified MAP Algorithm Suitable for Implementation of Turbo Decoders," <i>Electronics Letters</i> , August 6, 1998, pages 1577-1578, Vol. 34, No. 16. |
| | | HAGENAUER, J., et al.; "Iterative decoding of binary block and convolutional codes," <i>IEEE Trans. on Information theory</i> , Vol. 42, March 1996, pp. 429-445. |

| | | | |
|--|--|-----------------|--|
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| | | HEEGARD, CHRIS, et al.; <i>Turbo Coding</i> , 1999, Kluwer Academic Publishers, Norwell, Massachusetts (entire book). |
| | | HSU, JAH-MING, et al.; "A Parallel Decoding Scheme for Turbo Codes," <i>ISCAS 98. Proceedings of the 1998 IEEE International Symposium on Circuits and Systems</i> , Monterey, CA, May 31, 1998, pages 445-448. |
| | | KIM, B., et al., "Reduction of the number of iterations in turbo decoding using extrinsic information," 1999 IEEE TENCON, pp. 494-497. |
| | | LANGLAIS, CHARLOTTE, et al.; "Synchronisation in the Carrier Recovery of a Satellite Link Using Turbo-Codes with the Help of Tentative Decisions," <i>IEE Colloquium. Turbo Codes in Digital Broadcasting - Could It Double Capacity?</i> , November 22, 1999, pages 5/1-7. |
| | | MOHER, M.; "Decoding via cross-entropy minimization," in Proc, IEEE Globecom Conf., Hoyston, TX, Dec. 1993, pp. 809-813. |
| | | MORLET, C., et al.; "A Carrier Phase Estimator For Multi-media Satellite Payloads Suited to RSC Coding Schemes"; IEEE 2000, June 18, 2000, pp. 455-459 vol. 1; ISBN: 0-7803-6283-7. |
| | | PIETROBON, STEVEN S.; "Implementation and Performance of a Turbo/MAP Decoder," a paper submitted to the <i>International Journal of Satellite Communications</i> , February 21, 1997, rev. December 4, 1997 and April 2, 1998, 45 pages. |
| | | PROAKIS, J.G.; "Digital Communications" 1991 "Modulation and Demodulation for Additive Gaussian Noise Channel", McGraw-Hill, New York; XP002193198 181370, pp 234-271. |
| | | RAMSEY, JOHN L.; "Realization of Optimum Interleavers," <i>IEEE Transactions on Information Theory</i> , May 1970, pages 338-345, Vol. IT-16, No. 3. |
| | | RICHARDSON, T., "The geometry of turbo-decoding dynamics," <i>IEEE Trans. on Information Theory</i> , Vol. 46, Jan. 2000, pp. 9-23. |
| | | ROBERTSON, PATRICK, et al.; "Bandwidth-Efficient Turbo Trellis-Coded Modulation Using Punctured Component Codes," <i>IEEE Journal on Selected Areas in Communications</i> , February 1998, pages 206-218, Vol. 16, No. 2. |
| | | SCHLEGEL, CHRISTIAN; <i>Trellis Coding</i> , 1997, IEEE Press, Piscataway, New Jersey (entire book). |

| | | | |
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| | | SCHURGERS, C., et al.; "Energy Efficient Data Transfer and Storage Organization for a MAP Turbo Decoder Module"; XP010355952; August 16, 1999, pp. 76-81, ISBN: 1-58113-133-X. |
| | | SKLAR, BERNARD; <i>Digital Communications Fundamentals and Applications</i> , Second Edition, 2001, Prentice Hall PTR, Upper Saddle River, New Jersey (entire book). |
| | | UNGERBOECK, Gottfried; "Channel Coding with Multilevel/Phase Signals," <i>IEEE Transactions on Information Theory</i> , January 1982, pages 55-66, Vol. IT-28, No.1. |
| | | VITERBI, ANDREW J.; "An Intuitive Justification and a Simplified Implementation of the MAP Decoder for Convolutional Codes," <i>IEEE Journal on Selected Areas in Communications</i> , February 1998, pages 260-264, Vol. 16, No. 2. |
| | | VUCETIC, BRANKA, et al.; <i>Turbo Codes Principles and Applications</i> , 2000, Kluwer Academic Publishers, Norwell, Massachusetts (entire book). |
| | | YUE, CHUNG-WAI, et al.; "On the FER Performance and Decoding Complexity of Turbo Codes," <i>1999 IEEE 49th Vehicular Technology Conference</i> , Houston, TX, May 16, 1999, pages 2214-2218. |
| | | SHEN, et al. "Stopping Criteria For Iterative Decoding" US Application No. 09/900,222 filed on July 6, 2001 |
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